

Zoning for Small Wind Turbines

- Short towers, up to 35 ft, usually can be installed with only a building permit
 - Based on firefighting limitations in the early 1900s
- Taller towers may require a “special use review” by the zoning commissioners
 - Hearing process can cost thousands of dollars and may take several months
- Zoning approval may be difficult or impossible to get for urban and suburban locations
- Zoning is usually easier to obtain in rural areas

Utility Poles



Jefferson County, Colorado



Transmission Lines



Cell Phone Towers

Jefferson County, Colorado

How Do Wind Turbines Compare?



Charlotte, Vermont

Windmills... Or Not?



Adams County, Colorado



Zoning Issues (I)

- Property size
- Tower height (... as a function of property size)
- Setbacks
 - Site plan
- Maximum capacity or size
- Building code compliance
 - Drawings of tower and foundations/footings
 - Engineering analysis, wet or dry stamp?
- National Electric Code compliance
 - One-line electrical drawings

Zoning Issues (II)

- Compliance with FAA regulations
 - FAA Advisory Circular AC 70/7460-2K
 - No warning lights required under 200 ft total height
 - Height limits may apply within 3 miles of any runway
- “Approved” wind turbines (design safety)
 - Certification to national/international standards
 - Evidence of reliable one-year operation
- Notice to the utility, and/or interconnection agreement
- Notice to neighbors

Zoning Issues (III)

- TV/radio interference
 - Not a problem for wood or fiberglass blades
- Noise
 - Apply existing rules
 - Exception for utility outages or severe storms?
 - Sound level decreases with distance² from the source
- View protection
- Attractive nuisance
 - No handholds/footholds for first 12 ft above ground?
- Signage/labeling

Zoning Issues (IV)

- Abandonment
- Permitted use, conditional use, special use, or variance?
- Use varies by zone?
- Is a public hearing required?
 - Hearings place a significant additional burden on the applicant to prepare and defend the application
- Permit for a wind turbine creates legal precedent for cell phone towers?

California Small Wind Zoning Law

- AB 1207, passed in 2001
- All zoning jurisdictions required to have a small wind zoning ordinance within 6 mo.
- Applied to “non-urban” areas
 - Population densities < 1,000 /square mile
- Minimum standards are given
- If not, small wind turbines permitted as “use by right”

Zoning Information on the Web

- Zoning discussion from the American Wind Energy Association
 - www.awea.org/faq/sagrillo/ms_zoning1.html
- Kern County, California, zoning code
 - <http://ordlink.com/codes/kerncoun/>
 - Title 19, numerous chapters

Closing Thoughts

- The primary opportunity for small wind turbines will be in rural and less-densely-populated areas
 - Wind resource
 - Space for turbine installation
 - Zoning
- Zoning costs and antiquated zoning rules are ongoing problems in many locations

Guidance on Structures Near Airports

from: FAA Advisory Circular AC 70/7460-2K

